

CLAIM OR CLAIMS

WHAT IS CLAIMED IS:

1. A high frequency sweep generator using a high frequency tunable
5 oscillator having a coarse tune port and a fine tune port for producing a linear swept high frequency signal comprising:
 - means for digitally generating a controllable linear ramp sweep signal
for coupling to the coarse tune port; and
 - means for generating from the swept high frequency signal an error
10 correction signal for coupling to the fine tune port that compensates for non-linearities in the linear swept high frequency signal.
2. The high frequency sweep generator as recited in claim 1 wherein the
error correction generating means comprises:
 - 15 a direct digital frequency synthesizer for generating a linear, frequency ramped sinusoid; and
 - a phase locked loop having as inputs the linear, frequency ramped
sinusoid and the swept high frequency signal and producing as an output the
error correction signal.
- 20 3. The high frequency sweep generator as recited in claims 1 or 2 wherein the controllable linear ramp sweep signal digital generating means comprises:
 - a programmable accumulator clocked by a sweep clock and having a
sweep time increment as input to produce a sweep ramp signal during a

sweep time and a retrace time increment as input to produce a retrace signal during a retrace time, the sweep ramp signal and retrace signal producing the controllable linear ramp sweep signal; and

5 means for controlling the sweep clock in response to a trigger signal to produce the controllable linear ramp sweep signal from the sweep ramp signal and the retrace signal.